SKIN DISEASES

DUE TO

NERVOUS DERANGEMENTS

DR. STREECH DOWSE



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ON SOME

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WHICH ARE PRODUCED BY

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BY

THOMAS STRETCH DOWSE, M.D., F.R.C.P. Ed.,

FORMERLY PHYSICIAN TO THE SKIN DEPARTMENT OF CHARING CROSS HOSPITAL AND PHYSICIAN TO THE CENTRAL LONDON SICK ASYLUM; PHYSICIAN TO THE HOSPITAL FOR EPILEPSY AND PARALYSIS, AND TO THE NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

'He pried through Nature's store, Whate'er she in the ethereal round contains, Whate'er she hides beneath her verdant floor.

Nor would he scorn to stoop from high pursuits Of heavenly truth and practise what she taught; Vain is the tree of knowledge without fruits.' Thomson.





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PREFACE.

The following pages have been written to illustrate, in the most simple and practical manner, that many diseases of the skin are really more due to some defect or derangement of the nervous system than to an altered condition of the blood, and that the treatment of these diseases, if it is to be curative, must be directed rather to strengthening the nervous system than to the removal of so-called blood impurities.

THOMAS STRETCH DOWSE.

14, Welbeck Street,
Cavendish Square, W.
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ON SOME

DISEASES OF THE SKIN,

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Were the nature of nervous affections of the skin and its appendages more clearly understood, we should undoubtedly find less difficulty in applying to them methods of treatment more decisive, and more certainly curative. Modern investigation, indeed, has conclusively proved that a large proportion of skin diseases is due to an exalted or depressed condition of the nerves which govern circulation, secretion, and nutrition; and at the present time it is admitted, that defective treatment is often due to a want of knowledge of the important part played by the nutritive nerves, in these almost universal and troublesome complaints.

Were we asked, what skin diseases were absolutely of nervous origin? we should unhesitatingly reply that the majority was.

When we consider how essentially the skin is connected with the brain and the spinal cord, through the plexiform series of nerveloops which underlie the skin, and which form a nervous circuit with the various nervous centres, we cannot be at a loss to comprehend how intimate and vital are these associations. The sensibility of the skin to diseased action is demonstrated in many ways, and although we are perfectly justified in ascribing diseases of the skin to gout, scrofula, phthisis, and so on, yet the development of the eruption will frequently be, in direct proportion and quantity to the stability or instability, and to the vital force, and generative capacity, of the nervous centres, no less than to the conducting power of the nerves themselves.

The excretory power of the skin, in relieving the body of waste material, is one of nature's processes; and, through the skin, the failure of nerve-power is exemplified in nearly every form of debility and of inflammatory disease.

The best-known example, perhaps, is the profuse sweating in consumption, due to the want

of contractile power in the nerves, which are in connection with the sweat-glands.

The skin eruptions which are associated with, and intermittent with, dyspepsia, irregular action of the heart, sleeplessness, giddiness, headache, constipation, furred tongue, weariness, and lassitude, can in a large number of instances, be clearly traced to malaria, over-work, bodily and mental fatigue, anxiety, grief, fits of passion, or exhaustive indiscretions.

In all such cases as these, the nervous system must play a very important part, as well in their production as in their cure. The old-fashioned system of purging, depleting, and starving, in the treatment of such cases, has now, to a great extent, become obsolete; and fortunate it is for our patients that it is so. But, on account of our variable and varying peculiarities of constitution, what is, in reality, a stimulant and tonic form of treatment in one case, will be found in another to be depressing and relaxing; just in the same way that a dose of opium will relieve pain and produce a quiet and refreshing sleep in one patient, whilst in another it will produce the greatest distress and excitability.

It is a great misfortune for the true and perfect development of the science and art of healing,

that such anomalies should exist, for they often bring the profession into discredit. It is still more unfortunate, however, when fashion seizes the helm, and directs and controls the method of treating diseases. It must be often surprising, and, in fact, incomprehensible to our patients, to find that the same disease which fashion, some years ago, treated with bleeding, or an immoderate use of alcohol, is now treated by a milk diet and Apollinaris water. Doubtless, in the majority of cases, success attends either of these modes of treatment, and nothing can demonstrate more clearly and fully, to the thoughtful and reasoning mind, how essentially necessary it is, that the healer of diseases should be guided as little as possible by stereotyped opinions. By this we mean, what fashion dictates, and is considered the guiding or ruling principle of the day. Articles are written and published in the Contemporary Review, or in the Nineteenth Century, or n some other periodical, by different medical men, it may be on 'Diet,' or on the 'Use and Abuse of Alcohol,' or on some such subject, and it is a great chance if any two writers agree. But medical men are not alone in the matter of inexplicable and contradictory reasoning. Matters, in themselves apparently simple and easy of intelligence are often disputed and contested, and, indeed, are continually arising, to disturb the harmony of the Bar, and even of the Church.

Thus it is with human knowledge throughout the whole range of inanimate matter. Consequently, the truest kind of knowledge and the most stable groundwork for action consist in following the dictates of experience, and hence gathering the ripe fruit by close observation and practice.

By these means alone, can we ever hope to undo the tangled web of conflicting statements, and to advance the onward march of scientific investigation in the curative treatment of disease.

It is greatly to be regretted, however, that these chaotic elements permit, nay, even foster; the engenderment of practitioners, who, without any qualification, attempt to cure disease by the presumed influence of psychiatry, mesmerism, electro-biology, metallotherapy, and the like. Yet, from my own experience, I cannot deny, that in certain morbid states of the mind and nervous system, such as I have met with in my asylum and private practice, and in such cases as those with which M. Charcot, of Paris, has been startling the most scientific investigators of the present century, we are not justified in discard-

cannot see the nature of their mode of operation, although the effect is often strikingly apparent. It is on account of the vagueness of our knowledge of the intimate relationship between the mind and the body, in reference to morbid states of either of them, that, despite the labours of physiologists and psychologists like Schlegel, Kant, Hume, Spenser, Bain, Huxley, Tuke, Maudsley, and others, we often find, that our grasp of medicine, in a large number of instances, leads us only to the threshold of these investigations.

A disease of the skin occurring on one half of the body, and not upon the other half, may be considered to be controlled by nervous agency, rather than a disease of the skin, which occupied parts of both halves of the body symmetrically; but this of itself is no true guide. The beaded eruptions of shingles is a type of direct nerve agency, which is rarely ever other than one-sided, and can scarcely be said to be due to age or idiosyncrasy.

There can be no great doubt that a large number of skin cruptions which are said to be due to yout and scrofula, to the disease of the lymphatic and sweat-glands, is, in fact, the result of perverted nervous influences.

In some of the mutilating forms of leprosy, the nerve-trunks are found to be completely disorganised; but this condition exists pari passu with the disorganisation of every normal structure entering into the formation of the skin, and, as far as treatment is concerned, may well be called malignant.

If we trace the constitutional history of an inadividual, the subject of nervous skin disease, we find, in almost every instance, the symptoms and signs which are so indicative of this type of morbid nerve action.

'A lady, who was for some time under my care, and who suffered from lepra psoriasis, and hysterical melancholia, was rapidly relieved of the skin disease through the revulsive action to the nervous system of an epileptic fit; and this was noticeable not once, but upon several occasions.

In another case, a lady of a highly nervous and sensitive nature, nothing used to delight her more than when her eczema made its appearance, for then she knew full well, that her nervous morbid symptoms would subside.

In the case of another lady, the subject of hysterical epilepsy commencing with an aura in the region of the left ovary, the fit was always

abortive provided she burst out into a profuse perspiration, and a few eczematous papules, of a deep purple, appeared on the palms of her hands.

A country gentleman, of gouty history, and who had lived freely every day of his life, consulted me for an affection of the pneumogastric nerve, which prostrated him and brought him to a condition verging on melancholia. His country pursuits, such as riding, hunting, and shooting, of which hitherto he had been particularly fond, now failed to interest him. He rapidly tired upon exertion, and at night would awake with attacks of difficulty of breathing. He suffered also from flatulent dyspepsia, irregular and rapid action of the heart, giddiness and singing noises in the ears, dryness of the mouth, offensive breath, and dirty tongue. Shortly after being under my care, an eczematous eruption made its appearance all over his head and face, and rapidly extended to the trunk. His temperature rose to 103°, and for a few nights he was delirious and in a very critical condition. He ultimately recovered, and, though much reduced in flesh, his nervousness and other troublesome symptoms completely left him.

Reflected nerve action, in producing diseases

of the skin, is of common occurrence, and especially in young children. No better or teaching instance can be given, than the skin eruptions so frequently met with, and caused by the difficulties of teething, the irritation of worms, and unwholesome and indigestible food.

Convulsions, and even loss of life, have frequently resulted from the too rapid healing of these skin eruptions by outward applications, and by not paying sufficient attention to remedy and remove the cause.

The intense sympathy existing between the skin and the nervous centres, in influencing the processes of nutrition, is seen in the effects of blisters, the actual cautery, and galvanism. The following case, quoted from the celebrated Irish physician Dr. Stokes, shows this: "A lady who had laboured under ovarian disease, with severe symptoms of chronic inflammation of the mucous membrane of the intestines, as evinced by diarrhea, bloody stools, tenderness of the abdomen, and emaciation, was severely burned, in consequence of her clothes taking fire. The neck, arms, and throat were the seats of the injury. On recovering from the accident, the greatest improvement became manifest in her health. The bowels became regular, nutrition went on,

the ovarian enlargement subsided greatly, and the patient has since enjoyed a good state of health.'

M. Charcot says: 'There is nothing better established in pathology, than the existence of the troubles of nutrition consequent on derangements of the nervous centres, or of the nerves.' And again, he says: 'If diseases whose consequence is the abolition, or suspension, of the action of the nervous system are unable to produce in distant parts other disorders of nutrition other than those attributable to prolonged inaction, it is not thus as regards disorders which determine, either in the nerves or nervous centres, an exaltation of their properties, an irritation or an inflammation.'*

The late M. Mougeot has given this subject considerable attention, and to him we are indebted for much valuable information.

In 'Guy's Hospital Reports for 1867,' p. 316, Sir William Gull brought forward a paper of special interest, which showed that the slightest

Charcot, 'On Diseases of the Nervous System,' New Sydenham Society, 1877, pp. 7 and 12.

[†] B. A. Mougeot, 'Recherches sur quelques Troubles de Nutrition consecutives aux Affections des Nerfs.' Paris, 1867.

irritation upon the skin of some persons will produce a form of nettle-rash, by partly paralysing for a time the nerves which control the circulation. 'This susceptibility,' he says, 'of the skin is common, in a greater or less degree, to all persons, and can be termed morbid only when extreme. In the first patient in whom I noticed it, it was the source of great inconvenience, for if the skin were handled roughly, as in wiping the face with a towel, or in putting on the socks, it would quickly become swollen and stiff with wheals, which are principally due to contractions of the skin.'

The course of events in a case of this kind seems owing to: 1st, Sensory nerve disorders; 2nd, Contraction of cutaneous muscular fibres, due to irritation of their motor nerves; and, 3rd, Paralysis of cutaneous nerves controlling the circulation.

NETTLE-RASH

is unquestionably of nervous origin. The wheal-like elevations, due to spasm of the skin, contracting it into bumps, and altering the normal sensibility, are exceptionally diag-

nostic. If the nerves of the skin be deadened by means of chloroform, they cannot be stimulated to contract; and again, if chloroform, or ice, be applied to a wheal, the contractile power of the nerves is relaxed, and the wheal subsides. Remote irritation often gives rise to nettle-rash, and is not unfrequently its essential factor. Scanzoni (Edin. Med. Journal, Oct., 1860) gives an interesting case due to this cause: "A woman, aged twenty-eight, had five leeches applied to the mouth of the womb. Scarcely had they taken hold, when she complained of most violent labour-like pains in the abdomen, accompanied with such intense fever that the entire body glowed with heat, the pulse rose to 140°, the arteries of the neck pulsated visibly, and the face, neck, and chest exhibited an intensely red colour; to which was added, in a very short time, a large eruption of urticaria elevations of a palish colour. The eruption was accompanied by great headache, inclination to vomit, and excessive lassitude—symptoms which continued to the following day, although the rash, with the accompanying fever, disappeared entirely after three hours' continuance.' Scanzoni refers these phenomena to irritation of the uterine nerves, and states 'that they could not depend upon the absorption of any poison from the leeches, as no such symptoms are ever occasioned by the application of leeches to other regions of the body.' Many such cases could be quoted without difficulty.

The following case is one of several somewhat similar cases which have occurred to me in the course of my practice:

'A lady, thirty-three years of age, and in good health, was asked by some friends with whom she was staying to partake of some oysters for supper. At first she declined, saying that they never agreed with her, and that she knew of a friend who had died from eating them. She was ultimately persuaded to eat one. Several persons were at supper, and partook of the oysters, but were in no way affected by them. However, in about half an hour I was summoned to the house, and I found the lady in the greatest state of nervous excitement. The temperature was 103°, the pulse and respiration hurried, the throat and tongue dry, the eyes bloodshot, the temporal arteries beating visibly, the lips swollen, and the breath highly offensive. She complained of intense headache and griping pairs of the stomach and bowels, nausea, and giddiness; and although the trunk of the body was so hot, the feet were comparatively cold. The skin of the face, neck, trunk, and arms was of lobster redness (erythema), accompanied with unbearable feelings of irritation, itching, tingling, creeping, and as though a number of needles were acting upon it. She desired to pass water, but was unable; she wanted to drink, but it was with difficulty she could swallow. Her friends, no less than herself, were in the greatest state of alarm, and vexed they were to a degree when I made light of such distressing symptoms. Knowing the highly nervous temperament of my patient, I at once injected under the skin half a grain of muriate of morphia, which caused vomiting, but sleep of some duration supervened, and the following morning the skin cruption and the more severe symptoms had subsided. Since this time my patient never sees an oyster 'without,' as she says, 'feeling a shiver go through her, and a creeping come over her skin.' It is quite evident that this form of nettle-rash and multiform erythema are essentially of nervous origin, and due to the action of the cerebral mental processes upon the vascular motor centres in the medulla oblongata.

Cases somewhat resembling the above are not

unfrequently the result of malarious influence. A short time ago I was called to see a lady in the north of London.

She was between forty and fifty years of age, of delicate organisation, and had lived for many years in India; but since her return to this country she had resided chiefly in Malvern, which place appeared to suit her. On coming to live on clay soil she became subject to attacks resembling ague, and which were sometimes accompanied with sore throat and a peculiar redness of the tongue. Her medical attendant guided her through these distressing and exhausting seizures, but no check was established to prevent their invasion or recurrence. When I saw her she was covered from head to foot with nettle-rash, with extremely well-marked red wheal-like elevations. The itching was so intolerable that she could scarcely bear it, and under the left breast the pain was agonising. The temperature was not raised; the pulse was full, variable, and soft; the urine scanty and highly coloured, the headache intense, and there was an intolerance of light, and great irritability. She thus described the common and usual commencement of these attacks: A general feeling of coldness, almost amounting to shivering, and

a creeping over the skin, which began from the feet upwards, with more or less numbness in the left leg, moving up to the groin, and occasionally to the arm-pit. Her rest was disturbed by unpleasant dreams, her bowels were irregular or obstinately confined, and her normal mental state at these times was perverted, and her likes and dislikes became strangely changed in reference to her daily pursuits, and even to her dietary. I attributed these attacks to malarial influence, which depressed her vaso-motor system of nerves, and I effected her cure with quinine, iodide of potassium, and arsenic.' I may here remark that she had been to a physician, who prescribed total abstinence as the only means, or as a basis of cure.

We must not fail to observe, that a simple hyper-vascularity of the skin (hyperamic erythema), without severe constitutional symptoms, may be essentially of nerve origin, and it may be associated with an exalted sensibility, or with numbness, and with irritable sensations of all kinds. We most frequently find it in those persons whose nervous systems are more or less unstable, and who inherit what may be truly called the nervous diathesis; and one or other of the parents, or immediate relatives, of such

persons will be found to have suffered from asthma, angina pectoris, or some other affection of the pneumogastric nerve, or nervous system. In a family under my care, one brother died suddenly of heart disease, and the other brother suffered from spasm of the gall-duct, with occasional attacks of jaundice; one sister suffered from an affection of the pneumogastric nerve, with palpitation of the heart, throbbing of the arteries of the neck, booming noises in the head and spasm of the throat; another sister had distressing nervous headaches; and again, another suffered from hysterical melancholia; and the only sister who enjoyed good health is subject to attacks of gout and eczema, which are both equally of nervous origin. The proof of the fundamental common-sense truth of these observations will be found in and confirmed by the treatment, which should consist of alterative and nutritive nerve tonics. I cannot speak too highly of bichloride of mercury, with arsenic, in such cases as these. Their administration, if persisted in for some weeks, will often cure, when depressing remedies, as colchicum, alkalies, and digitalis, are worse than useless.

The most practical way of considering nervous skin diseases is to refer to those skin eruptions which are more or less immediately associated with injuries to nerves, and it is to Dr. Weir Mitchell and Sir James Paget that we are indebted for much that we know about them. The former makes this statement: 'At some time in the history of a nerve injury, it is common to see certain forms of eruptions which form bladders (herpes vesicles, or bullæ). In our own practice we saw numbers of eruptions, which, as a rule, were most sure to be met with in the cases of the greatest irritation, and which usually assumed the appearance of small vesicles.'*

Sir James Paget, in speaking of such cases, remarks: 'Glossy fingers appear to be a sign of peculiarly impaired nutrition and circulation, due to the injuries of nerves. They are not observed in all cases of injured nerves, and I cannot tell what are the peculiar conditions of the cases in which they are found; but they are a very notable sign, and are always associated, I think, with distressing and hardly manageable pain and weakness. In well-marked cases, the fingers which are affected (for this appearance may be confined to one or two of them), are usually tapering, smooth, and hairless, almost void of wrinkles, glossy, pink, and ruddy, or blotched,

^{* &#}x27;Injuries of Nerves,' p. 153.

as if with permanent chilblains. They are commonly also very painful, especially on motion, and the pain often extends up the arm.

'In most cases this condition of the fingers is attended with very distinct neuralgia, both in them and in the whole arm, and its relation to disturbances of the nervous condition of the part is, moreover, indicated by its occasional occurrence in cases where neuralgia continues after an attack of shingles affecting the arm.'*

These observations on the nervous origin of skin affections, both from peripheral as well as central irritation, are sufficient evidence to guide us to the conclusion that defective action on the part of the nutritive nerves ought to teach a lesson of paramount importance and significance, relative not only to changes which are seen and realised during life, but to many of those obscure forms of diseased changes which are rarely made evident until after death.

In some very interesting lectures on 'Nerves of Nutrition,' in the Medical Times and Gazette, March 18, 1871, Dr. Laycock observes: 'Before we consider special tissue changes as trophic (nutritive) changes, let us clearly understand

^{*} Paget, Medical Times and Gazette, March 26, 1864.

what we mean when we speak of loss of tone, of nervous debility, and of defective innervation.'*

It is clear that these phrases may refer, either to defective vital energy in general, or to defective regulative nerve-energy especially. The following case of gangrenous stomatitis is a typical instance of want of due nerve force to excite and regulate nutrition. It is one of many, although rare, which I saw in the year 1877.

'Agnes D., æt. twenty months, came under my care on September 29, 1877. Previous to my seeing her she had had measles, from which she never fairly recovered, and, shortly after, it was noticed that there was a considerable thickening of the upper lip, that the breath was highly offensive, that the saliva dribbled from her mouth, and that the submaxillary glands were enlarged. When the upper lip was freely exposed, the disease was seen to be limited to its posterior surface, and to the gums in connection with the front teeth. Here the soft parts were in a state of gangrene, and the incisor teeth of the upper jaw were quite loose. But in addition to this, the soft parts around the lips were regularly and symmetrically de-vitalised and carbonaceous.

^{* &#}x27;Lectures on Diseases of Organs and Tissues, as influenced by the Nervous System.'

Nevertheless, the child's general vitality was fairly good. She was placed under the influence of chloroform, and the loosened teeth were removed, as well as the neighbouring dead tissues. This having been done, strong sulphurous acid was carefully applied, a generous diet of milk, brandy, and egg was given every quarter of an hour, and a mixture of quinine, strychnia, opium, and chlorate of potash was ordered to be taken every two hours. By this active treatment the disease was arrested, and although the child's condition was extremely critical for some days, she ultimately recovered.'

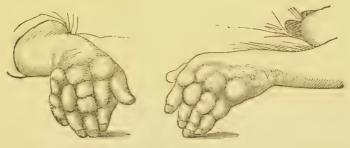


Fig. 1.

I fortunately met with a case of dysidrosis (disease of sweat-glands), (Fig. 1), of signal interest, and, as far as I could judge, the disease was governed by precisely the same nervous laws of nutrition as in the case just mentioned. The

patient was over fifty years of age, and suffered from gout and kidney disease. In this case the chief points of notice and interest were these:

- '1. The man had a gouty history, and his eldest son, like himself, was a martyr to gout. Instead of having a skin disease, the man considered that he ought to have had an attack of gout, for he felt the same as he always did when the gout was coming on.
- '2. Upon the Good Friday before I saw him, his skin became exceedingly irritable, the hands and feet burning and tingling, and, in the course of a few hours, they were covered with a shotty eruption, which in some places formed into bladders.
- '3. When he came under my care he was noted as a man of strong physique, fair complexion, and with well-marked gouty characteristics; his ears were large, the under lobe thickened with gouty concretions, and the fingers and hands were deformed from gouty joint changes. He was extremely feeble; there was great mental depression, and the movements of the upper limbs were accompanied with tremor.
- '4. The skin eruption was variable and symmetrical in character, and the forehead, alea of the nose and mental fossa, were bespattered with

eczematous incrustations. The arms, which were at first almost devoid of sensation, became now extremely sensitive, swollen, painful, and covered with a lichenous rash. The hands, but especially the fingers on the inner side, were partially covered with large blebs. The joints seemed to be the chosen seats of these, and they made their appearance with astonishing rapidity, and a few hours sufficed to admit of their rising to a large size. The feet and toes were affected in the same manner. The tongue was clean and moist, and the appetite fairly good.'

Now, in the case here given, I have little doubt that the condition of impaired nutrition was essentially due to a paralysis of the nerves which govern the circulation and nutritive processes of the skin.

BALDNESS, ETC.

The influence of the emotions and mental disorders upon the hair, considered from an ordinary point of view, is the most interesting example with which we are familiar of the effects of peripheral nerve stimulation, emanating from that part of the brain wherein resides the mind. That fright will make one's

skin to creep, and hair to stand on end, and also suddenly or rapidly to turn the hair white, is a physiological fact well known and recognised from the earliest times. With regard to the hair standing up, a very interesting case came under my notice a few years ago.

The wife of a military man, a lady about twenty years of age, who suffered from very marked curvature of the spine, was delivered of a fine healthy child. Shortly after her confinement, all the signs of puerperal fever set in, and ended in puerperal melancholia. When I first saw her she was greatly emaciated, and was totally indifferent to her child as well as to her immediate friends. The attacks of despondency were very distressing, and at times maniacal. She would throw herself about upon the floor, and strike her head violently against anything with which it came in contact. But what is of interest to remark here is, that she always knew, as a rule, when these seizures were approaching, for on one side of the head the hairs would stand quite upright, and nothing but the firmest pressure would alter their position. She was treated by increasingly large doses of atropia, and, as her mental powers returned, so did the hair become obedient to the usages of the toilet. Although I have seen

many cases somewhat similar to this, yet I never saw so marked a case, or one which yielded more rapidly and effectually to treatment.

In mental derangements, our patients are frequently rebuked for not keeping their hair tidy; but in a large number of instances it is impossible for them to do so, because their nervous condition so affects the hair that it becomes practically impossible.

A curious case of baldness from fright is reported in the Gazette des Höpitaux, No. 83, 1879. 'A girl, aged seventeen, who had always enjoyed good health, had one day a narrow escape from being crushed by a floor giving way beneath her. She was very much frightened, and the same night began to complain of headache and chills. The next morning she felt restless, and had itching of the scalp. During the following days she steadily improved, with the exception of the itching. One day, in combing her hair, she noticed that it came out in great quantities. Three days later, she was perfectly bald, and in two more days she had lost every hair on her body. Her general health was good. The patient remained bald, and was so two years later.'*

^{*} A remarkable instance of the hair suddenly turning

With these cases before us, which show undoubtedly the effects of nervous influence upon the hair, we can see clearly and judge of the important part which the nerves, and especially the nerves of nutrition, play in the production of baldness. Authorities upon diseases of the skin have differed in opinion as to whether certain forms of baldness were, or were not, essentially of nervous origin. The growing opinion, however, is in favour of their being due, in the majority of instances, to defective nerve action. I have no hesitation in stating it to be an unquestionable fact that many of the so-called parasitic affections of the hair are due to a faulty action, in the first instance, of those nerves which govern and control nutrition. There are two conditions of the nerves which are essentially connected with baldness: 1. Defective action on the part of the nerves, due to the want of tone or formative force, such as we find to follow exhaustive diseases or fast living, over-study, or anything which lowers the vital tonus; and (2), the actual wasting of the nerves themselves, in

white, from a fright or shock to the system, was given by a witness at the celebrated 'Tichbourne Trial.'—See report of trial.

all probability due to some low form of inflammatory change.*

Women do not, as a rule, become bald so early or so frequently as men; and this is explained by Pincus, of Berlin, by the fact that in the tissues of the scalp, as in many other regions, the female sex preserves the characters of child-hood more than men of the same age.† It has never been satisfactorily explained why ordinary baldness should be limited to the forehead and vertex, and should leave the temporal regions unaffected.‡ If baldness and greyness are equally

^{*} Nerve atrophy, I consider, is due to the arrest of the trophic influence, normally proceeding from the central nervous system. There can be little doubt of the existence of this influence which controls the nutrition of peripheral parts, and the disturbance of which leads to atrophy and degeneration. There are two known kinds of atrophy of peripheral nerves, viz., the primary and the secondary. The former may be instanced by those changes which occur in the retina (neuro-retinitis); the secondary atrophy is preceded by fatty changes; and, finally, absorption of the medullary sheath of the nerve takes place, which renders the condition irremediable. In the baldness of advancing age, resulting from senile atrophy, the nerves do not undergo any characteristic anatomical change, although they become attenuated, drier, and poorer in their watery constituents.

[†] Berliner Klinische Wochenschrift, Nos. 4 and 5, 1875.

[†] This limitation of baldness is ascribed, by the Vienna

due to the influence of nerves governing nutrition, it seems rather strange that nature should in the one case take the top of the head for its purpose, and in the other the temporal regions. Yet, as a fact, it is so. Again, it is interesting to note how in fair people, suffering from chronic rheumatism of the joints, associated with muscular wasting, which is due essentially to disturbances of nerve influence, from a bloodless change in the central nervous centres, the hair of the head will comb out, as patients say, in handfuls, whilst hair upon the extremities will grow with amazing rapidity. There are familiar instances of such cases coming under our notice daily.

'A young gentleman of fair complexion, though not essentially of the rheumatic diathesis, consulted me in the spring of this year. He was, in every sense of the word, crippled by the swellings of the joints, and exhausted by severe and distressing pains. He had been to Aix-la-Chapelle, Aix-les-Bains, Schwalbach, and to the sulphur baths of the Pyrenees. He had used Turkish baths, and had exhausted the resources

School of Dermatologists, to its dependence on a change in the trophic influence of the supra-orbital branch of the fifth nerve.

of hydropathic establishments, without gaining any substantial benefit. So thin and scant was the hair of his head that he contemplated wearing a wig, and yet, according to his own statement, upon his lower limbs (which had become much wasted) the hairs increased with such rapidity that he could almost see them grow. An essentially milk diet, wine, eggs, and cream, given at frequent intervals, cod-liver oil, frictions, and faradisations to the spine and head, did him more good than all his previous treatment, and he is now completely cured, and the hair of the head restored.

The total loss of hair in young persons is a very distressing circumstance to parents, and to the young persons themselves. Von Barensprung, Voigt, and Hebra attribute this loss to 'a failure in nerve power, and a gradual wasting of the peripheral ends of the nerves,' and of this there can be little doubt; for the offices of nutrition seem suddenly to fail, the hair-forming apparatus loses its inherent qualities, and the whole scalp becomes changed, white, and shining, and loses, more or less, its natural sensibility. I have always considered that the state of sensibility of the scalp was an important guide to our treatment, and I undoubtedly prefer the compass and

galvanic current test to any other in making a prognosis. When the scalp has undergone wasting and degeneration, due to an initial lesion of the nervous central system, our attempts at cure are much less hopeful.

In considering the treatment of baldness due to nervous agency, we are not to ignore any of the external means which are usually adopted; yet there can be no doubt that thousands of people diligently use stimulant lotions and pomades when there is not the slightest chance of any benefit being derived.

In baldness, due to mere nutritive disturbance of the nerves of the head, arising from trouble, or some exhausting disease, over-study, or mental derangement, local stimulant applications, and shaving of the head, together with the use of tonic medicines and a highly nutritious diet, are frequently beneficial. When, however, degeneration and wasting of the nerves have set in, then recourse must be had to friction and electricity. If the re-establishment of the connection of the peripheral ends of the nerves with the central nervous system be possible, it is to be effected more readily by these than by any other means.

Electricity acts by improving the condition of the circulation, by exciting the functional activity of the nerves; and there can be no doubt, when duly administered, electricity is pre-eminently useful and curative in many cases of baldness due to primary nerve-wasting.

At one time, dermatologists endeavoured to prove that disease of the hair-follicles through parasitic influence was of all things the most common. But recent investigations have shown, with some amount of certainty, that even where the parasite had become fully developed, its germination and propagation were really due, in the first instance, to defective nutritive nerve influence. We now know full well, and this is the most important point for our patients, that the administration of such drugs as opium, atropine, arsenic, quinine, phosphorus, bichloride of mercury, strychnine, and cod-liver oil, with an especial nutritive diet, and a weak galvanic current to the skin, do more to effect a cure than pounds of ointment and gallons of washes.

This statement applies to, and is borne out by, the facts of treatment not only in cases where the most primitive forms of fungi exist, but also in those cases where the more highly developed parasite finds a fair field for increasing its species.

ITCHING, ETC.

There is another troublesome condition of the skin generally, and of the hairy parts underneath the arms, and between the thighs. To this condition may be referred pruritis, prurigo, mitis-formicans, senilis, where the patients feel a creeping, itching, burning sensation, like the crawling of innumerable insects over the skin; and, indeed, all kinds of sensations are not unfrequently experienced. Now, these sensations are invariably due to a faulty condition of the nervous system. They may be associated with living organisms, and they may lead on to more definite, and in some instances more aggravated, forms of skin disease by scratching; but in every case the powers of nerve nutrition are essentially at fault. Sedative emollient applications will relieve for a time, but will utterly fail to cure the disease. A discontinuance of soaps, and of all such-like other irritant applications, and the administration of bromide of potassium, colchicum, aconite, and bicarbonate of soda, using warm baths, and observing perfect cleanliness, with nutritious diet, will invariably cause the condition to subside rapidly and completely.

I can scarcely recall to mind a more instructive instance of inactivity of the vaso-motor and nutritive nerves (assimilative processes) than in the following case.

It is a case which clearly shows how essentially such a state is due to an impaired tone of the nervous system, and how readily it yields to a correct form of treatment:

'A stout, fair, and well-nourished woman of twenty-seven years of age came into hospital, and was under my care. She was born in Cambridgeshire, and had suffered from ague, but had no special family history of gout or nerve derangement. Her statement was to this effect: "That whilst in good and robust health, she first, during the last week of Easter, observed on the extensor surfaces of the knees and elbows, small, flat, and slightly raised red patches, which were extremely irritable, and soon became pale, and afterwards died off in large scaly flakes (psoriasis). The patches then made their appearance round the waist, and, in a short time, covered the whole of the body except the face. The hands were the last to become affected, and the last to get well."

'From this period up to the time of my seeing her she had been trying a number of remedies without any good result; in fact, the disease had

progressively increased, and she became so prostrate that she was scarcely able to stand. There was an amount of mental depression in equal ratio with the physical prostration. The urine was free from albumen, and the catamenia were normal. She had daily attacks which in some way resembled ague, and which gave distinct evidence of the origin of the disease. For instance, she would be seized with tremor, beginning in the left foot, and taking the left half of the trunk, and the left arm, up to the occiput; then, leaving the face, it would pass over to the right half of the trunk, take the right arm, and finally attack the right leg and foot. She said the sensation was similar to that produced by a galvanic battery. The attacks were usually attended by a sense of coldness, and succeeded by great heat and profuse sweating.

'The entire body was covered by a mass of scales, which were produced and shed with astonishing rapidity. On account of the great irritation she slept but little.

'On Tuesday, July 15, she was put into a blanket-bath. For this purpose the bed was covered with a large piece of india-rubber sheeting, and upon this was placed a blanket wrung out of hot water, and in the blanket the patient

was closely packed, and then other blankets were placed over her. She was allowed to drink iced water in small quantities. The respiration and circulation were never affected. When she was taken out of the blankets all the scales had disappeared, leaving the body of a lobster redness. She was then enveloped in indiarubber sheeting, which was bandaged close to the body. In a day or two the scales reappeared, but not to the same extent. On the 23rd the bath was repeated, with similar good results. From this time the disease was manifestly checked, and by the 1st of August the skin was perfectly healthy, and she never felt better in her life.'

Now, if we consider the aggravated nature of the disease, and the rapid way in which it yielded to this purely resolvent mode of treatment, we have every reason to be satisfied with the result.

There are many other skin diseases, and changes in the skin, which are due to defective action of the nutritive nerves, and which might be referred to, but which it would be quite out of place to notice here.

ABNORMAL SENSATIONS OF THE SKIN.

such as numbness, coldness (chills), heat, sweating, and the so-called dying of the extremities—hands, fingers, feet, and toes—are conditions common to every period of man's existence, from the suckling infant to second childhood. In some instances they are the forerunners of the most serious consequences; in other instances they are merely indicative of a disordered state of health, and are only of temporary duration. In both cases. however, they are illustrative of sympathetic nervous depression. Sometimes we find coldness and numbness to be associated with extreme paleness of the part affected, whilst at other times there may be present various shades of skin discolouration. In every instance they show an unstable state of the central nervous system, and a condition which is secondary, as a rule, to spasm of the motor nerves which govern the movements of the vessels and of the blood supply. In all probability, the prime factor is the result of defective action in those formative processes of nervous matter which are so essential to the co-relative and harmonious working of the vast tracts of the sympathetic system of nerves. An artery supplying a limb with blood becomes plugged; its temperature rapidly falls, abnormal sensations arise, and then mortification ensues. But this form of disease it is not now our intention to notice; we now refer only to those nervous states which are associated with defective nerve power, and which are known to culminate in the hysterical, the epileptic, the hypochondriacal, and the melancholic. Such states or conditions undoubtedly exist in women in a greater proportion than they do in men, but however, not to so great an extent as is usually supposed. Man's inherent self-governing power, and power also of self-restraint, are greater than those of woman, and for this reason we find nervous abnormalities less highly developed in the former than the latter. Nevertheless, their actual existence in both man and woman is unquestionable.

Sir Benjamin Brodie, in his work on 'Local Nervous Affections,' draws particular attention to the sudden alteration from heat to cold in the limbs of those who suffer from hysterical affections of the joints. Thus, in the morning the limb may be cold, and of a pale or purple colour, as if there were scarcely any circulation of the blood in it, while towards the afternoon it becomes

warm, and in the evening actually hot to the touch.

Those practitioners who have had experience in the treatment of growing girls as well as of nervous women, especially when they are afflicted with slight mental derangement or morbid fancies, and more particularly when they have the elements of hysteria in their nature, showing itself in ill-developed paroxysms, cannot have failed to note these changes of temperature and sensibility. It must not, however, be forgotten that these abnormal states, though they are, for the most part, of no great moment when taken by themselves, yet are not unfrequently symptomatic of very grave organic disease of the brain and spinal cord, so that they ought to receive, at all times and under all circumstances, the most serious attention. I have known such cases dismissed as beneath the notice of scientific investigation and inquiry, and as being only mere nervous states, requiring only doses of valerian and cold shower-baths, when, alas! pathology has revealed and taught the injustice and unsoundness of such conclusions. The absence of normal sensibility to touch, to heat, to cold, and to the electric current, as well as an exalted sensibility without per-

sistent paralysis, certainly come under the heading of nervous affections, and may, in the majority of instances, be termed hysterical.* Mr. Brown Sequard has very decided and advanced views relative to this kind of change, 'as being the result of reflex action.' The primary cause of the irritation, which leads to inhibition and perverts the normal functions of the brain and spinal cord, frequently depends upon an exalted, and, in many instances, a morbid sensibility of the peripheral nerves which supply the sexual apparatus—the uterus, the ovaries, and the bladder. Examples of defective sensibility due to this cause are constantly coming before us, both in hospital and in private practice, and ought never to be disregarded.

It often requires the greatest care, and even skill in diagnosis, to lead us to a right and fair

System,' Sydenham Society, 1877, p. 251—in speaking of hemianœsthesia, says: 'It is, above all, inaccurate to say that the hemianœsthesia developed under the influence of encephalic lesions always differs from hysterical hermiamesthesia, by the fact that in the former case the skin of the face does not participate in the insensibility, or that, when it exists, it never occupies the same side as the insensibility of the members, or is due to mere enervation of localised districts of the brain and spinal cord.'

estimate of the actual states of our patients, for on the one hand we may be led to believe (if we accept our patients' statements) that serious disease exists, just as on the other hand we may consider what are most vital symptoms as matters of little importance.

There is no form of paralysis more puzzling, or which tends to bear out the statements of Mr. Brown Sequard in reference to reflex paralysis, than that of diphtheritic paralysis. The inconstant and migratory action of the paralysing agent, and the varying phenomena which it induces in reference to sensation, are, in a measure, typical. The following case is one of reflex action:

'A young lady, aged twenty-two, of highly nervous temperament and strong passions, in the spring of this year consulted me for weakness in the lower limbs. She had been married only seven weeks, and she volunteered the statement that she attributed her present condition to the over-fulfilment of her conjugal affections, as, previous to her marriage, she was unusually strong. For a week she suffered from aching and burning in the soles of her feet. Sometimes the feet would feel extremely hot and sensitive, and at other times cold and almost devoid

of feeling. There was a slight heaviness in the legs in the morning, but nothing more to indicate paralysis. One night her feet were unusually cold, and, sitting before the fire, she placed them on the bars of the grate. Her attention was shortly drawn to her boots, which actually were on fire, and her feet were burning without her having perceived any sensation of heat. In the course of a few days the lower limbs were almost devoid of sensation, and the power of movement was greatly affected. When I first saw her, there was not only the paralysis just mentioned, but the sphincters were occasionally incompetent. It was some months before the spinal cord regained its activity. Phosphorus, strychnine, galvanism, flying-blisters, and rest were resorted to as remedies, by which her cure was effected.

Graves mentions an interesting case of a young girl who came under his care, where the changes of temperature from heat to cold, and the colour changes, were remarkable. One leg and a foot at a time became very hot, swollen, smooth, shining, and as dark as a ripe black cherry. When the hot fit ceased, the slight swelling and the discolouration subsided, and the affected parts remained, during the next stage, pale, deadly cold, and comparatively free from pain.

Only about three hours of complete intermission ensued in the twenty-four, one leg becoming affected as the other recovered.'

The complete absence of sensibility, and the bloodless condition of the skin and mucous membrane of one entire half of the body (hysterical hemianœsthesia), which we find in hysterical patients, is of the greatest interest. It usually affects the left half of the body in women, and I have seen several cases where the right side has been affected in men. The special senses are invariably influenced also on the same side—i.e., sight, smell, taste, and hearing. Our knowledge of this state is greatly due to the labours of M. Charcot, whose writings upon this and kindred subjects are so familiar to us, and whose experiments with metals and magnets have astonished the medical world by the results which they have effected in restoring sensibility and in reducing contractions

UNHEALTHY SWEATING,

either general or local, when profuse, is an undoubted indication of want of tone and of defective nervous action. In some cases it shows most distinctly organic disease of the

brain. A patient now under my care, who is affected with right-sided paralysis, suffers from the most profuse perspiration on the right (paralysed) half of the body, and it comes on either from exercise or excitement; and, interesting to relate! the right half of the forehead will be covered with beads of water, whilst the left half is absolutely dry. I know of no more unpleasant condition than that of those persons who have habitually perspiring hands and feet, and who are merely what they term 'out of sorts.' Men will attribute this condition to being out of form, and ladies will attribute it to the 'weather.' In any case, although they feel it to be of the greatest annoyance and discomfort, and the burthen of their lives, yet they are, or seem to be, most anxious to pass it off lightly, as though it were a trifle and not worth consideration. One thing, however, is quite certain, and that is, that persons in this condition are not in good health.

In looking over my cases, I have been made most forcibly conscious of the fact that in such cases there has been some depressing agency at work, in which the mind participated; for instance, anxiety about business, matrimonial, or home affairs, or about something which gave rise

to depression and reduced the healthy standard. When this sweating is unassociated with fatigue or sleeplessness, or incapacity for work, it cannot be said to be of vital significance; but should it be connected with any of these conditions, it at once becomes a most serious and important matter, and requires immediate attention. One of my cases is particularly teaching and instructive in this respect.

SWEATING HANDS AND FEET.

A fine, healthy-looking young lady came to me, complaining of the great distress to which she was subject in consequence of her hands and feet perspiring without any apparent cause. She admitted that exercise and excitement tended to aggravate the symptoms and made her feel weak. For some weeks she would be free from this troublesome complaint altogether, but then her general health seemed to suffer. There was a decided history of consumption in the family, but at this time there were no particular night-sweatings of significance. I ordered her increasing doses of atropia, arsenic, quinine, and strychnine, particularly requesting

her not to use any strong astringent applications to the feet. I lost sight of her for over twelve months. When I again saw her, she told me that she had been using strong lotions, which had, indeed, the effect of checking the perspirations of the feet, but that ever since her health had begun to fail. General perspiration of the body then commenced, which became aggravated at night, and she rapidly lost flesh, spat blood, and in a very short time became quite emaciated.

In cases of this kind I never advise local remedies unless I feel as sure as I can well be that there is no constitutional disease in the background, of which the sweating is merely a symptom. The value of iodide of potassium, in doses of ten grains every other night, and Turkish baths, with change of air and scene, have been, in my experience, the most valuable curative agents which we have at our disposal.

ENLARGEMENT OF THE ENDS OF THE FINGERS AND OF THE TOES.

I will now refer to an enlargement (hypertrophic) of the terminal ends of the fingers and toes, with which we are all so familiar in consumption and in other chronic diseases of the heart and great vessels of the chest, and which is usually known to us as clubbing. I would say that in my experience these deviations, from the slightest normal growth to the strongest characteristic enlargements, are the most striking manifestations of defective nervous power in immediate relation with the thoracic circulation with which we are acquainted. They are, too, of the greatest possible value to the practical physician in making a correct diagnosis, for they are not only intimately associated with advancing organic disease of the chest, but they are frequently the precursors of the gravest maladies.

There can be little question that these abnormal changes of nutrition are, more or less, immediately connected with similar changes in the spinal sensory-motor-sympathetic and vaso-motor-ganglia of the thorax.

Dr. Weir Mitchell, in speaking of alterations of the appendages of the skin, consequent upon nerve wounds, makes the following note: 'After the total section of a nerve, the nails are apt to become clubbed, and, in rare cases, to suffer from whitlow.' He further remarks: 'I am unable to say whether or not nail growth is for a time immediately arrested after the section of the nerve, but in most of the cases it is found at a later

stage to be slower than that of the corresponding healthy parts, although in no instance have I met with a total cessation of growth.' In slight nerve wounds ulceration around the nails is common, and often very painful, and in connection with the glossy skin of certain neural lesions we have observed striking peculiarities of the nails. These peculiarities happen only in the fingers, the neural supply of which has been interfered with, so that the nails of the median distribution may be contorted, whilst the nails of the little fingers may be unaffected. When the nails of the toes have been attacked, and they are

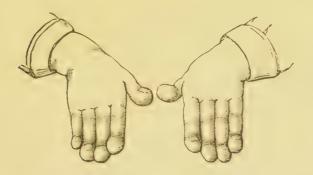


Fig. 2.

very rarely so, the curving is less marked, but a distressing ulceration is apt to occur at the angles.

The nails seen in the illustrations (Figs. 2 and 3) are the most typical of the kind which I



Fig. 3.

have ever seen. They were photographed from a lady sixty years of age. Age, however, it must be remembered, has little to do with their production. The lady had been quite well, and had enjoyed excellent health until she was fifty-seven years of age, when she caught a severe cold from sleeping in a damp bed, and was completely prostrated with gouty and rheumatic swellings in the joints. As this condition passed off it was succeeded by cough, spitting of blood, night-sweats, and highly offensive expectorations. At this time she also complained of intense coldness and numbness in the toes and fingers, which

alternated with burnings, prickings, and tingling, accompanied with darting neuralgic pains, so that her attention was almost constantly directed to them. There were well-marked chalky changes about the finger-joints. The urine was high-coloured, and, for the most part, loaded with lithates, but free from albumen. The pulse was usually full and tense, the tongue coated, the cheeks flushed and more or less blue, and both her lungs were undergoing disintegration at their bases.'

Here, then, we had a clear case of disturbance of nerve nutrition from gouty, inflammatory action in the lungs and vessels of the chest, associated with the peculiarly interesting and typical change in the extremities of the fingers and toes. Notwithstanding the severity of the symptoms, she progressed favourably under the influence of increasing doses of atropia. And this drug undoubtedly seems to have an especial curative influence over those cases which are essentially due, in the first instance, to defective action of the vaso-motor nerves.

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Erasmus Wilson, in his oration 'On the Progress of Cutaneous Medicine,' delivered before the Medical Society of London in May, 1876, made the following remark: 'I may say for

myself, that although experience has given me a thorough trust in the remedies which I employ, I am, nevertheless, bound to admit that there is still very much to be accomplished in this department to raise our practice to the level of our theory, and to render it, if possible, a science rather than an art.'

With these so apposite words of Mr. Erasmus Wilson we will conclude these observations.

THE END.

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